

Perinatal Period - Neonatal Respiratory Distress Syndrome
Summary of Methods and Data for Estimate of Costs of Illness

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|--|-----------------|
| 1. Estimated Total Economic Cost | \$ 1.1 billion |
| Estimated Direct Cost | \$ 0.7 billion |
| Estimated Indirect Cost | \$ 0.4 billion |
| Reference Year | 1997 |
| IC Providing the Estimate | NHLBI |
| | |
| Direct Costs Include: Other related nonhealth costs | No |
| Indirect Costs Include: | |
| Mortality costs | Yes |
| Morbidity costs: Lost workdays of the patient | No |
| Morbidity costs: Reduced productivity of the patient | No |
| Lost earnings of unpaid care givers | No |
| Other related nonhealth costs | No |
| Interest Rate Used to Discount Out-Year Costs | 6 % |
| 2. Category code(s) from the International Classification of Diseases, 9th Revision, Clinical Modification,(ICD-9-CM) for all diseases whose costs are included in this estimate: <u>769</u> . | |
| 3. Estimate Includes Costs: | |
| Of related conditions beyond primary, strictly coded ICD-9-CM category | No |
| Attributable to the subject disease as a secondary diagnosis | No |
| Of conditions for which the subject disease is an underlying cause | No |
| 4. Population Base for Cost Estimate (Total U.S. pop or other) | Total U.S. pop. |
| 5. Annual (prevalence model) or Lifetime (incidence model) Cost: | Annual |
| 6. Perspective of Cost Estimate (Total society, Federal budget, or Other) | Total Society |
| 7. Approach to Estimation of Indirect Costs | Human Capital |
| | |
| 8. <u>Source of Cost Estimate:</u> | |

Unpublished. Contact Mr. Thomas Thom, NHLBI, 301-435-0710.

References:

1. Health Care Financing Administration. National Health Expenditure Table 2:
<http://www.hcfa.gov/stats/nhe-oact/tables/t10.htm>
2. Preprinted tables obtained by personal communication from Elaine Wood, National Center for Health Statistics from the forthcoming report: National Center for Health Statistics. Detailed diagnoses and procedures, National Hospital Discharge Survey, 1997. *Vital and Health Statistics* (in press).
3. Detailed mortality tables from the NCHS website: <http://cdc.gov/nchswww/>
4. Obtained by personal communication from Wendy Max, University of California at San Francisco on July 13, 1998.

9. Other Indicators of Burden of Disease:

In 1998, RDS was the fourth leading cause of infant mortality occurring at a rate of 31.0 per 100,000 live births. (CDC, NVSR, October 5, 1999. Vol. 47, No. 25.

10. Commentary:

Neonatal RDS (NRDS) direct costs for 1997 are estimated by applying to the 1997 HCFA estimate of national health expenditures for hospital care (\$371.1 billion) (1) the ratio of days in hospitals in 1997 due to NRDS (295,000 days) and total days (157,458,000) reported by the National Hospital Discharge Survey, of NCHS (2). Only the primary diagnosis of NRDS reported in the surveys was considered. Allocating costs according to the primary diagnosis eliminated overlap with other diseases. Costs associated with NRDS as a comorbid condition to some other primary diagnosis were not included. Costs incurred by family or other personal caregivers for NRDS patients cannot be estimated and were not included. The national health expenditures that cannot be allocated to diseases (e.g. construction and research) were not included in the NRDS direct costs.

The indirect morbidity cost of NRDS cannot be estimated. The indirect mortality cost of NRDS in 1997 represents lost productivity based on lost earnings attributed to premature deaths from NRDS in that year. It was estimated by applying the numbers of NRDS deaths in 1997, by age and sex reported from national vital statistics (3), to the age-sex 1997 estimates of the present value of lifetime earnings discounted at six percent (4). NRDS deaths in 1997 were those where NRDS was the underlying cause of death regardless of what other contributing causes may have been present. Other deaths, where NRDS was a contributing cause, were not included.